

## Abstract

The purpose of this study is to check the resistance toward hollow mask illusion in schizophrenia patients. Many new findings are pointing toward worse face recognition ability in schizophrenia patients relating to reduced size of fusiform gyrus volume. Hollow mask illusion is a depth inversion illusions or DII, in which concave faces appear as convex, this illusion happened because of general bias in human top-down perception to perceive ambiguous 3D face surface as convex regardless of its actual condition. Schizophrenia patients has been known to be more resistant toward the illusion because patients have weaker bias toward perceiving ambiguous 3D face surface as convex. The study was done by using an application that shows the hollow mask illusion while recording the response from subject. 25 patients diagnosed with Schizophrenia from several mental hospital were recruited for the patients group, while 22 participants from normal population were recruited for the control group. The result was then compared to normal control group using One Way ANOVA to find the difference between groups. For additional analysis, control group data was also correlated to *Skala Skizofrenik* from *Skala Kepribadian UGM*. The result shows that patients group did not differ in the amount illusion seen ( $F = 1.376$ ,  $p = 0.247$ ), rather data shows that schizophrenia patients tend to give slower response toward hollow mask illusion compared to normal group ( $F = 6.350$ ,  $p = 0.012$ ). Additionally, control group data shows significant negative correlation between the test results with *Skala Skizofrenia* from *Skala Kepribadian UGM* ( $r = -0.484$ ,  $n = 22$ ,  $p = .022$ ). While the result confirm the hypothesis partially, further research is needed since patients group tend to show delayed response in all experimental condition.